

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 08-206154

(43)Date of publication of application : 13.08.1996

(51)Int.Cl.

A61F 13/15

(21)Application number : 07-321280

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NEPIA:KK

(22)Date of filing : 16.11.1995

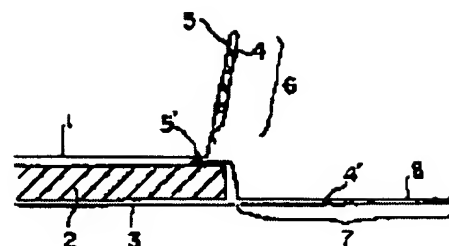
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## (54) MANUFACTURE OF DISPOSABLE DIAPER

## (57)Abstract:

**PURPOSE:** To obtain a disposable diaper which achieves improvements in steaming and spillage at both side line parts by joining a surface sheet having a second flap formed by bending a stretching elastic body being wrapped inward on a sheet-shaped material separate from a surface sheet forming a side flap beforehand.

**CONSTITUTION:** A hot melt adhesive 5 is applied on the rear side of both side line parts of a surface sheet 1 and a stretching elastic body 4 is bonded being stretched and then, a second flap part 6 is formed by bending the stretching elastic body 4 inward (on the rear side) being wrapped outside an adhesive 5 applied part. The stretching elastic body is bonded with a hot melt adhesive 5' on an end rim part of a film-shaped or sheet-shaped material 8 separate from the surface sheet at a base part of the second flap and the outside part of the film-shaped or sheet-shaped material 8 separate from the surface sheet is stuck on a rear sheet 3 to form a side flap 7.



## LEGAL STATUS

[Date of request for examination] 24.02.1997

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number] 3179323

[Date of registration] 13.04.2001

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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CLAIMS

[Claim(s)]

[Claim 1] The surface sheet which bent the edges-on-both-sides section so that the elasticity elastic body 4 might be wrapped in inside, and formed the 2nd flap 6 before sticking the surface sheet 1 which bent the edges-on-both-sides section so that the elasticity elastic body 4 might be wrapped in inside with the rear-face sheet 3 and an absorber 2. The surface sheet 1 of liquid permeability and the rear-face sheet 3 of liquid impermeability which are characterized by performing beforehand junction for the shape of a film of another object, and the sheet-like material 8 with the surface sheet which forms the side flap 7 along the base of the 2nd flap. It has the 2nd flap 6 which has an absorber 2 in the meantime, and has the side flap 7 which extended outside from the longitudinal direction edges on both sides of said absorber, and was installed along with the edges-on-both-sides section of an absorber. A side flap A rear-face sheet. A surface sheet is the manufacture approach of a disposable diaper of have done by the shape of a film and sheet-like material of another object sticking, and setting it, and this 2nd flap having the end face section on the surface sheet of 1-30mm inside from the edges-on-both-sides location on an absorber, and standing up up.

[Translation done.]

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## DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the manufacture approach of a disposable diaper. Furthermore, it is related with the manufacture approach of a disposable diaper that \*\*\*\* and leakage have been improved, in detail.

[0002]

[Description of the Prior Art] Conventionally, a disposable diaper has the absorber inserted into the surface sheet and the rear-face sheet, it has the side flap prolonged outside from the longitudinal direction edges-on-both-sides section of an absorber, attaches an elasticity elastic body in this side flap, raises the fit nature to a crotch, and is aiming at leakage prevention. Moreover, there is a disposable diaper which gave permeability, was steamed and aimed at the improvement by making a this side flap or surface sheet top into a end face, installing the 2nd flap prolonged to the upper part, and creating this 2nd flap with an aeration water repellence nonwoven fabric.

[0003] Namely, Provisional Publication No. The 2nd flap which has a side flap containing an elasticity elastic body, and fell inside the diaper as the leakproof section is installed, and the diaper which created the pocket section between the surface sheets on an absorber, and measured leakage prevention to it is known as shown to 62 No. -250201 official report.

[0004] Moreover, Provisional Publication No. As shown in 62 No. -223303 official report, an elasticity elastic body is not installed in a side flap, but an elasticity elastic body is installed in the leakproof section (the 2nd flap section), in an abdomen field and a regions-of-back field, the 2nd flap is pushed down in the direction of an outside of a diaper, adhesion immobilization is carried out, and the diaper which was steamed and measured the improvement is known.

[0005] Furthermore, real \*\*\*\* As shown in 62 No. -153311 official report, an elasticity elastic body is not installed in a side flap, but an elasticity elastic body is installed in the leakproof section (the 2nd flap section), and the diaper which carried out adhesion immobilization, was steamed in the direction of the inside of a diaper in the 2nd flap in the abdomen field and the regions-of-back field at the derrick-down side flap, and measured the improvement and the leakage improvement is known.

[0006] All the disposable diapers that have the 2nd conventional flap have the end face section of the 2nd flap beside [ outside ] the edges on both sides of an absorber, when there is no absorber and urine has flowed into the part just under the 2nd flap, a pool is made into the part by them and they let the 2nd flap pass, or they jump over the elasticity elastic body in the parietal region of the 2nd flap, and leakage tends to generate them.

[0007]

[Problem(s) to be Solved by the Invention] Since the disposable diaper with which the former crowded together and leakage has been improved was using the material which has permeability although it is water repellence for the 2nd flap which is the leakproof section, it was not perfect about leakage prevention. This invention aims at solving such a trouble.

[0008]

[Means for Solving the Problem] As a result of repeating research wholeheartedly, these researchers came to accomplish this invention, in order to improve leakage further about the disposable diaper which has the 2nd flap in order to improve the above-mentioned trouble, i.e., \*\*\*\* and leakage. Namely, it has an absorber the surface sheet of liquid permeability, the rear-face sheet of liquid impermeability, and in the meantime. In the disposable diaper which has the side flap which extended outside from the longitudinal direction edges on both sides of said absorber, has the 2nd flap installed by lapping on this side flap field, and has an elasticity elastic body in this 2nd flap This 2nd flap is constituted by bending the edges-on-both-sides section of a surface sheet so that an elasticity elastic body may be wrapped in inside. A side flap The rear-face sheet and the surface sheet found out that the above-mentioned trouble was solvable, when it had done by the shape of a film and sheet-like material of another object sticking, and setting it and the end face section installed this 2nd flap on the surface sheet inside the edges-on-both-sides location of an absorber.

[0009] The approach of this invention namely, the surface sheet 1 which bent the edges-on-both-sides section so that the elasticity elastic body 4 might be wrapped in inside The surface sheet which bent the edges-on-both-sides section so that the elasticity elastic body 4 might be wrapped in inside, and formed the 2nd flap 6 before sticking with the rear-face sheet 3 and an absorber 2, The surface sheet 1 of liquid permeability and the rear-face sheet 3 of liquid impermeability which are characterized by performing beforehand junction for the shape of a film of another object, and the sheet-like material 8 with the surface sheet which forms the side flap 7 along the base of the 2nd flap, It has the 2nd flap 6 which has an absorber 2 in the meantime, and has the side flap 7 which extended outside from the longitudinal direction edges on both sides of said absorber, and was installed along with the edges-on-both-sides section of an absorber. A side flap A rear-face sheet. A surface sheet is the manufacture approach of a disposable diaper of have done by the shape of a film and sheet-like material of another object sticking, and setting it, and this 2nd flap having the end face section on the surface sheet of 1-30mm inside from the edges-on-both-sides location on an absorber, and standing up up.

[0010] Furthermore, it found out that leakage was further improvable by using the material whose part which forms the edges-on-both-sides section of this surface sheet, i.e., the 2nd flap, is water repellence and whose part located in the central field of a surface sheet, i.e., the field on an absorber, is a hydrophilic property. Moreover, it found out that leakage was further improvable by sticking along with the inside of the 2nd flap, waterproof thin layer film, for example, fine porosity polyester film etc., etc.

[0011]

[Embodiment of the Invention] This invention is explained below at a detail. As for the surface sheet used by this invention, a rear-face

sheet, an absorber, etc., a nonwoven fabric, polyethylene sheet, and fluff pulp + superabsorbency polymer etc. can use as it is what is used with the usual diaper, respectively. However, that to which the surface sheet carried out water-repellent treatment of both the sides is also used. Moreover, about a side flap, a hydrophilic property, a water-repellent nonwoven fabric, or a permeability polyethylene film is stuck on the part which extended outside from the edges on both sides of the absorber of a rear-face sheet, and it is formed.

[0012] The urethane film with which the elasticity elastic body installed in the 2nd flap and a side flap is usually used, urethane foam, urethane yarn rubber, natural rubber, etc. are used. Moreover, although leakage tightness is a little inferior when leakage prevention improves and it does not install conversely, although it crowds together and tightness gets a little bad, when installing an elasticity elastic body in a side flap, although it is not necessary to carry out even if it installs an elasticity elastic body in a side flap, it crowds together and tightness is good. When pushing down the 2nd flap outside and the 2nd flap is formed on both the sides of a surface sheet, a chip box process becomes less one process less than the case where an adhesion process is one process less than, and it forms for the same material as a side flap from the case where the material of a surface sheet and another object is used.

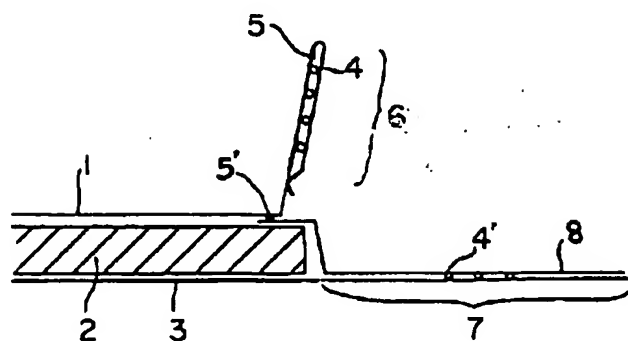
[0013] As a location in which the 2nd flap is attached, the location of the side edge of an absorber to 1-30mm inside is suitable. In the location of 1mm or less, a urinary pool tends to be made, if it becomes the location of 30mm or more from the side edge of an absorber conversely, a urinary absorption field will become narrow, and it is conversely leakage-easy and changes. Means of attachment have independent or the approaches by such combination, such as an approach by hot melt adhesive, a heat-sealing joining method, and an ultrasonic welding method. Although there should just be the die length of the clinch of the edges-on-both-sides section of a surface sheet more than the die length that wraps the elasticity elastic body installed in inside, the die length from which the 2nd flap becomes a duplex to leakage is more desirable, and the die length which covers the side edge of an absorber is more more desirable still.

[0014] Hereafter, based on a drawing, this invention is explained in detail. Fig. 1 -- a part of longitudinal direction of the disposable diaper of this invention -- what shows a sectional view -- it is -- a sign 1 -- a surface sheet and 2 -- an absorber and 3 -- rear-face sheet, 4, and 4' -- in elasticity elastic body, 5, and 5', the 2nd flap and 7 show a side flap and, as for hot melt adhesive and 6, 8 shows the shape of a film and sheet-like material of another object, as for a surface sheet. After applying hot melt adhesive 5 to the background of the edges-on-both-sides section of the surface sheet 1, it bends to the inside (background) and the 2nd flap section 6 is constituted so that the elasticity elastic body 4 may be wrapped in outside the back adhesives 5 spreading section pasted up where an elasticity elastic body is elongated. And in the base of the 2nd flap section, with the surface sheet, it has pasted up by the shape of a film of another object, the edge section of the sheet-like material 8, and hot-melt-adhesive 5', this surface sheet is stuck with the lateral part of the shape of a film of another object, and the sheet-like material 8, and the rear-face sheet 3, and the side flap 7 is constituted. Moreover, along with the length-from-the-crotch-to-the-cuff section of an absorber 2, elasticity elastic body 4' may be prepared in this side flap section.

[0015] Based on Fig. 2, the manufacture approach of the disposable diaper of this invention is explained below. In Fig. 2, the same sign as the sign of Fig. 1 has the same semantics as Fig. 1, in a sign 9, sign 9' shows a pressure-welding drum, and 10 shows the folding process section for a pin center, large drum. The surface sheet 1 sent from the surface sheet roll It is sent in the direction of an arrow head, applying hot melt adhesive to the edges-on-both-sides section, stick the elasticity elastic body 4 on this hot-melt-adhesive spreading section in the state of elongation, subsequently bend, and it sets in the process section 10. It bends outside the part which applied adhesives as wrapped in the elasticity elastic body inside, and pastes up in the base of the 2nd flap which formed the 2nd saccate flap and, subsequently to the both-sides section of a surface sheet, formed the edge section of the sheet-like material 8 by pasting up the edge, respectively. Subsequently, elasticity elastic body 4' is made to paste up on the edges-on-both-sides section of the rear-face sheet 3 sent from a rear-face sheet roll. And after pasting up and carrying out the laminating of this rear-face sheet, said sheet-like material, and the pasted-up surface sheet between a pin center, large drum and a pressure-welding drum with the absorber sent at the predetermined spacing on a rear-face sheet in the core. While cutting between absorbers, the disposable diaper of this invention can be obtained by judging in a predetermined configuration.

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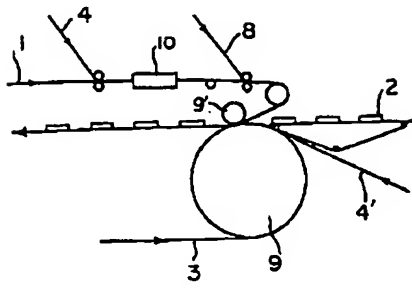
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Drawing selection drawing 2



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